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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,148	09/02/2004	Ronald William Driver	87278.2400	6085

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EXAMINER
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TRIEU, THAI BA

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/501,148	<b>Applicant(s)</b> DRIVER, RONALD WILLIAM	
	<b>Examiner</b> Thai-Ba Trieu	<b>Art Unit</b> 3748	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25,27-31,34 and 35 is/are pending in the application.
- 4a) Of the above claim(s) 2-18,24,25,27-31,34 and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is in response to the Election Requirement filed on April 03, 2006. Applicant hereby provisionally elects Group III claims 1 and 19-23 with traverse.

The Preliminary Amendment filed on July 13, 2004 is acknowledged. Claims 26, 32-33 were cancelled.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The references cited in the Search Report PCT have been considered, but will not be listed on any patent resulting from this application because they were not provided on a separate list in compliance with 37 CFR 1.98(a)(1). In order to have the references printed on such resulting patent, a separate listing, preferably on a PTO/SB/08A and 08B form, must be filed within the set period for reply to this Office action.

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **"18e"** (See Figure 4). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office

Art Unit: 3748

action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

Since the abstract is too long, applicant is required to submit a substitute abstract to meet the requirement set forth below:

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within **the range of 50 to 150 words**. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Objections***

Claims 1 is objected to because of the following informalities:

- In lines 4, 6-7, 12, and 15, ***"the said"*** should be replaced by either – ***the***  
– or – ***said*** – (*for addressing the redundancy*).

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 21, the phrase "for example" (e.g. rubber), in line 2, renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipate by Marshall (Patent Number 3,081,707).***

Marshall discloses a rotary positive displacement machine comprising:

a casing (10) having a circular cylindrical internal surface delimiting operating chamber (See Figures 1-2, 6-9, and 14-15);

a rotor (12) in the operating chamber (11), the rotor (10) being mounted so as to orbit about a chamber axis which is the axis of said internal surface, the rotor having a circular cylindrical external surface, the chamber axis passing through the rotor, a generatrix of the external surface being adjacent to said internal surface, and a diametrically opposite generatrix being spaced from the said internal surface (See Figures 1-2, 6-9, and 14-15);

a vane member (22, 28) mounted on the casing (10) and being pivotable about a pivot axis parallel to the chamber axis, the vane member (22, 28) being accommodated in a fluid inlet/outlet aperture (15; 16 or 76) in the casing (10), the vane member (22, 28) having a passageway communicating between the exterior of the casing (10) and the operating chamber, the vane member having an arcuate face which is coaxial with said pivot axis and which has a length substantially equal to of the motor, the vane member having end faces extending from the respective lateral ends of the arcuate face towards the pivot axis, and the vane member having a tip face adjacent the rotor, said faces being sealing faces with respect to corresponding surfaces of the casing aperture and the rotor (See Figures 1-2, 6-9, and 14-15, Column 1, lines 14-29); and

a linkage (64, 66) which connects the vane member to the rotor so  
a to keep the tip face of the vane member in sealing contact with the

external surface of the rotor, the linkage being connected to the vane member by an articulation having articulation axis such that a plane containing the articulation axis and the axis of said external surface passes through the region of sealing contact; in which the rotor comprises a rotating inner part (13) and a non-rotating outer part (19) (See Figure 7, Column 1, lines 9-72, Column 2, lines 24-72, Columns 3-9, lines 1-75, and Column 10, lines 1-20).

***Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Küster (Patent Number DE 77480).***

(See the whole document).

***Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Winkler Otto (Patent Number CH 334058).***

(See the whole document).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall (Patent Number 3,081,707), in view of Teesdale (Patent Number 1,584,824).***

Marshall discloses the invention as recited above; however, Marshall fails to disclose the inner end of the vane member being received in a recess in the external surface of the outer part of the rotor; the external surface of the outer part of the rotor having a coating of a compliant material; and the coating having axially extending grooves, in which end groove has one steep side wall and one gradually sloping sidewall.

Teesdale teaches that it is conventional in the pump art, to utilize a recess (not Numbered) in the external surface of the outer part of the rotor for receiving the inner end of the vane member (7); a coating of a compliant material (22) being on the external surface of the outer part of the rotor; and the coating having axially extending grooves (24), in which end groove (24) has one steep side wall and one gradually sloping sidewall (See Figure 4, Page 1, lines 76-80).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the structural details as taught by Teesdale, to improve the efficiency of the Marshall device.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



- Baudin (US Patent Number 4,149,833) discloses a rotary machine with pistons pivotally mounted on the rotor.
- Kinney (US Patent Number 1,079,561) discloses a rotary pump.
- Pratt (US Patent Number 922,189) discloses a pump.
- Morris (US Patent Number 663,184) discloses a rotary pump.
- Yun (Pub. Number EP 1 593 849 A1) discloses a rotary pump.
- Bauer (Pub. Number 41 14 104 A1) discloses a rotary piston power engine.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Application/Control Number: 10/501,148

Page 9

Art Unit: 3748

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB  
May 11, 2006



Thai-Ba Trieu  
Primary Examiner  
Art Unit 3748